Concordia University
Department of Computer Science and Software Engineering
SOEN 341 — Software Process
Fall 2008 — Section H
Homework Assignment Number 2

Instructions

This is an individual assignment. Even if some questions are related to your group project, all answers from individuals in the same group must be individual contributions.

Grading value is indicated with each question.

Similar questions (among others) will be asked in the quizzes.

Submit your answers electronically.

Question 1 [30 marks] Create a **use case diagram** based on the following problem specification concerning an elevator controller system:

Each elevator has a set of floor buttons, one for each floor. Any person inside the elevator can press the floor buttons. The buttons illuminate when pressed and cause the elevator to visit the corresponding floor. The illumination is cancelled when the corresponding floor is visited by the elevator. An emergency button can also be pressed, in which case a technician will be called automatically to fix the elevator. The technician can use a key to activate or deactivate the elevator, which deactivates all floor buttons. The basement, because of security reasons, is accessible only by the security officer by using a key that unlocks the basement floor button. All the elevators are controlled by a central/external unit at the reception desk.

Question 2 [30 marks] Inspect Section 4 of the document *(Example using another template (all phases))* on the Wiki. Identify what kind of UML diagrams you will be using in your second project deliverable for:

(a) [5 marks] architectural design,

(b) [5 marks] module interface design, and

(c) [5 marks] detailed design.

(d) [15 marks] Give an example of each such diagram above.

Question 3 [20 marks]
(a) [5 marks] List two criticisms or problems pertaining to how your project has been done up to now.

(b) [5 marks] Explain what impact these problems had on the project.

(c) [10 marks] Explain what better approach you would use to overcome this problem if you face it again in the future in another project.

Question 4 [20 marks]
(a) [5 marks] Explain two risks inherent to what remains to be done in your term project.

(b) [5 marks] Explain what is the possible impact of these risks.

(c) [10 marks] Explain what precautions can be used to avoid these risks in your project.